June 15, 1993

To: Robb Casagrande From: Mark Litton

RE: Engineering Inquiry

On June 8th and 12th I read the monitor points for WNRJ-AM as I do monthly. The results are below.

FCC VALUE IN CP Monitor Point Number	June 8th	June 12th
1 - 8.5 mV/m	6.6	6.7
2 - 2.6 mv/m	2.7*	2.6
3 - 2.9 mv/m	2.2	2.3
4 - 3.0 mv/m	2.7	2.9
5 - 5.2 mv/m	4.5	4.1

^{*} weather conditions probably the cause of overage.

As you can see, with the exception of the June 8th monitor point 2 reading, all readings are at or below our license values. I must note however that there is construction taking place in a quarry immediately behind the array. They are using a 100' crane that when in the upright position does distort our pattern. That may account for some deviation.

Paul Heinlien, who has more familiarity with directionals, reviewed the results of the measurements. Since John Battison is recovering from back surgery and is unavailable for field work, I have asked Mike Peters in Fort Wayne to schedule Paul Phillips to come down with a recently calibrated field intensity meter to check the readings again and provide a report.

We double-checked all operating logs for the last eight weeks and noted no "out of parameter" operation as delineated by our phase monitoring equipment.

We checked the modulation levels on WWHT-FM with a TFT model 744 modulation monitor and a McMartin monitor which just came back from calibration. The levels were checked on June 9th and June 11th and there were no more than 2 peak of 100% noted during a 6 minute period of observation. I readjusted the level so we do not exceed 98% on peaks. Paul Phillips will check the modulation with his equipment when he visits WNRJ's site.

In summary, we are in compliance with respect the technical issues raised by your inquiry.

Mark Litton Chief Engineer

EXHIBIT 6

	Normal	Remarks
EBS Received	*	
	×	
EBS Transmitted	· · · · · · · · · · · · · · · · · · ·	
Modulation	×	
Maka danula-	*	
Main Carrier		
Tower Lights	*	
Phase Monitor	×	
	7	

MONITOR POINTS	LIMIT	MEASURED VALUE
1	8.5	8.1
2	2.6	25
3	. 2.9	2.8
4	3.0	3.0
5	5.2	5.1

1-10-93

FOR WEEK OF: 1-11-93

	Normal	Remarks
EBS Received	×	
EBS Transmitted	Х.	
Modulation	×	
Main Carrier	×	
Tower Lights	×	
Phase Monitor	×	

MONITOR POINTS	PCC ! LIMIT !	MEASURED VALUE
1	8.5	8.1
2	2.6	2.3
3	. 2.9	28
4	3.0	3.0
5	5.2	50

CHIEF OPERATOR

REMARKS:

DATE

Balanced Modulatins

FOR WEEK OF:

	Normal	Remarks
EBS Received	X	
EBS Transmitted	X	
Modulation	X	
Main Carrier	×	
Tower Lights	X	
Phase Monitor	· 🗶	

MONITOR POINTS	_ !	FCC LIMIT	MEASURED VALUE
1		8.5	8.3
2		2.6	2.5
3	٠.	2.9	28
4		3.0	3.0
5		5.2	ς .

FOR WEEK OF:____

	Normal	Remarks
EBS Received	X	
EBS Transmitted	*	
Modulation	~	
Main Carrier	7	
Tower Lights	\sim	•
Phase Monitor	, 🎾	

MONITOR POINTS	ļ	FCC LIMIT	MEASURED VALUE
1		8.5	8.3
2		2.6	2.5
3	٠.	2.9	28
4		3.0	3.0
5		5.2	5.1

REMARKS:

Cleaned Filters

	Normal	Romarks
EBS Received	X	
EBS Transmitted	×	
Modulation	Х	
Main Carrier	× 1	
Tower Lights	Х	
Phase Monitor	· 🗡	

MONITOR POINTS	FCC LIMIT !	MEASURED VALUE
1	8.5	8.4
2	2.6	2.5
3	. 2.9	29
4	3.0	3.0
5	5.2	5.1

FOR WEEK OF:__

	Normal	Remarks
EBS Received	У	
EBS Transmitted	X	
Modulation	X	
Main Carrier	×	
Tower Lights	×	
Phase Monitor	٠ ٪	
	Ť	

MONITOR POINTS		FCC LIMIT	! MEASURED VALUE
1		8.5	8.4
2		2.6	25
3	•.	2.9	28
4		3.0	3.0
5		5.2	5.2

2-14-93

FOR WEEK OF: 2-15-93

	Normal	Remarks
EBS Received	X	
EBS Transmitted	×	
Modulation	X	
Main Carrier	X	
Tower Lights	X	
Phase Monitor	, X	

MONITOR POINTS		FCC LIMIT	MEASURED VALUE
1		8.5	8.5
2		2.6	2.6
3	٠,	2.9	2.8
4 ·		3.0	3.0
5		5.2	21

FOR WEEK OF:_

	Normal	Remarks
EBS Received	Х	
EBS Transmitted	X	
Modulation	×	
Main Carrier	X	
Tower Lights	X	
Phase Monitor	×	
	,	

MONITOR POINTS	FCC LIMIT	MEASURED VALUE
1	8.5	8.4
2	2.6	2.6
3 -	2.9	2.9
4	3.0	3.0
5	5.2	5.2

REMARKS:

Replaced (4) 833's & Returned, Balanced Modulators

FOR WEEK OF:_

	Normal	Remarks
EBS Received	Х	
EBS Transmitted	X	
Modulation	×	
Main Carrier	X	
Tower Lights	, 🗴	
Phase Monitor	, , \	
Modulation Main Carrier Tower Lights	X	

MONITOR POINTS		FCC LIMIT	 MEASURED VALUE
1		8.5	8.4
2		2.6	2.6
3	٠,	2.9	29
4		3.0	3.0
5		5.2	5.1

FOR WEEK OF: 3-8-93

	Normal	Remarks
EBS Received	χ	
EBS Transmitted	*	
Modulation	X	
Main Carrier	*	
Tower Lights	*	
Phase Monitor	, 🗡	

MONITOR POINTS	PCC Limit	MEASURED VALUE
1	8.5	8.5
2	2.6	a.5
3	. 2.9	29
4	3.0	3.0
5	5.2	5.2

Mark filler

3-14-93.

REMARKS:

Balanced modulators, Reduced Filment Voltage

Normal Remarks

WARJ WEEKLY MAINTANENCE LOG

FOR WEEK OF: 3-15-93

EBS Received			X	
EBS Transmitted			X	
Modulation			X	
Main Carrier			Ŷ	
Tower Lights				
Phase Monitor		•;	Σ,	
			V	
	500		^	
MONITOR POINTS	FCC LIMIT	MEASURED VALUE	^ { 3	,
MONITOR POINTS		measured value	^ { 3	
	LIMIT	8.5	~	,
1	LIMIT 8.5	8.5	~ }	
1 2	8.5 2.6	8.5	~	•

FOR WEEK OF: 3-22-93

	Normal	Remarks
EBS Received	χ	
EBS Transmitted	×	
Modulation	X	
Main Carrier	Х	
Tower Lights	×	
Phase Monitor	, X	

MONITOR POINTS	FCC ! Limit	MEASURED VALUE
1	8.5	8.4
2	2.6	2.6
3	. 2.9	29
4	3.0	2.9
5	5.2	5.1

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CHIEF OPERATOR

3-28-93

DATE

FOR WEEK OF: 3-29-93

	Normal	Remarks
EBS Received	χ	
EBS Transmitted	X	
Modulation	<i>y</i>	
Main Carrier	~	
Tower Lights	>	
Phase Monitor	, X	
	X	

MONITOR POINTS	FCC LIMIT	MEASURED VALUE
1	8.5	8.4
2	2.6	2.6
3	. 2.9	2.9
4	3.0	3.0
5	5.2	5.1

CHIEF OPERATOR

4-4-93

REMARKS:

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4-5-93

	Normal	Remarks
EBS Received	X	
EBS Transmitted	X	
Modulation	X	
Main Carrier	X	
Tower Lights	Х	
Phase Monitor	: X	

MONITOR POINTS	1	FCC LIMIT	MEASURED VALUE
1		8.5	85
2		2.6	2.6
3	٠.	2.9	29
4		3.0	3.0
5		5.2	5.2

CHIEF OPERATOR

DATE

FOR WEEK OF:_

Normal Remarks EBS Received EBS Transmitted Modulation Main Carrier Tower Lights Phase Monitor

MONITOR POINTS	FCC ! LIMIT !	MEASURED VALUE
1	8.5	8.4
2	2.6	2.5
3	. 2.9	28
4	3.0	2.9
5	5.2	5.1

FOR WEEK OF: 4-19-93

	Normal	Remarks
EBS Received	Х	
EBS Transmitted	X	
Modulation	X	
Main Carrier	×	
Tower Lights	<i>></i>	
Phase Monitor	· ×	

MONITOR POINTS	FCC LIMIT	MEASURED VALUE
1	8.5	8.3
2	2.6	2.3
3	. 2.9	25
4	3.0	2.8
5	5.2	5.0

DATE

807's weak Need TO Replace.

4-26-93 FOR WEEK OF:_

	Normal	Remarks
EBS Received	ኢ	
EBS Transmitted	χ	
Modulation	X	
Main Carrier	X	
Tower Lights	X	
Phase Monitor	\checkmark	
	į.	

MONITOR POINTS		FCC LIMIT	MEASURED VALUE	
1		8.5	8 5	
2		2.6	2.6	
3	٠.	2.9	28	
4		3.0	3.0	11 -
5		5.2	5.0	Wel

DATE

REMARKS:

Replaced 807 & Returned Balanced Modulators

FOR WEEK OF: 5-3-93

	Normal	Remarks
EBS Received	×	
EBS Transmitted	X	
Modulation	X	
Main Carrier	Υ	
Tower Lights	X	
Phase Monitor	, X	

MONITOR POINTS	FCC ! LIMIT !	MEASURED VALUE
1	8.5	8.4
2	2.6	2.6
3	·. 2.9	2.9
4	3.0	3.0
5	5.2	5.2

	Normal	Remarks
EBS Received	χ	
EBS Transmitted	X	
Modulation	X	
Main Carrier	×	
Tower Lights	Х	
Phase Monitor	, X	

MONITOR POINTS	_	FCC LIMIT	MEASURED VALUE
1		8.5	8.4
2		2.6	2.6
3		2.9	29
4		3.0	3.0
5		5.2	5.2

CHIEF OPERATOR

5-16-93

5-17-93 FOR WEEK OF:_

	Normal	Remarks
EBS Received	χ.	
EBS Transmitted	X	
Modulation	Х	
Main Carrier	X	
Tower Lights	X	
Phase Monitor	, X	

MONITOR POINTS	FCC ! LIMIT !	MEASURED VALUE
1	8.5	8.4
2	2.6	2.5
3	. 2.9	28
4	3.0	29
5	5.2	5.1

REMARKS:

DATE

FOR WEEK OF:___

	Normal	Romarks
EBS Received	χ	
EBS Transmitted	Х	
Modulation	χ	
Main Carrier	X	
Tower Lights	Х	
Phase Monitor	, X	

MONITOR POINTS	fcc Limit	MEASURED VALUE
1	8.5	8.5
2	2.6	2.6
3	. 2.9	28
4	3.0	30
5	5.2	5.2

REMARKS:

Changed Air Filters & Balanced Modulatoirs

FOR WEEK OF: 5-31-93

Pechanian .	Normal Remarks
	
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